REMARKS

Applicants thank the Examiner for acknowledging the claim for priority under 35 U.S.C. § 119, and receipt of a certified copy of the priority document submitted January 10, 2001.

Applicants thank the Examiner for considering the references cited with the Information Disclosure Statements filed January 10, 2001, June 27, 2003 and September 26, 2002.

Applicants thank the Examiner for acknowledging the election with traverse of Group I, and the election without traverse of Species A. Applicants had indicated that these elections resulted in the election for prosecution of claims 1-10 and 16-32. However, the Examiner has taken the position that claims 25-32 read only on a non-elected Species (shown in FIG. 4 of the Application). Thus, the Examiner has also removed claims 25-32 from consideration, leaving only claims 1-10 and 16-24 both elected and pending.

Applicants confirm the election of claims 1-10 and 16-24.

Status of the Application

Claims 1-10, 16-32 and 49-54 are all the claims pending in the Application, as claims 49-54 are hereby added to more fully define the invention, and non-elected claims 11-15 and 33-48 have been cancelled without prejudice or disclaimer. Claims 1-10 and 16-24 have been rejected.

Objection to the Title

The Examiner has objected to the title, alleging that it is "not descriptive." Applicants hereby amend the title to provide a more detailed description of the invention. Thus, withdrawal of this objection is respectfully requested.

Objection to the Abstract

The Examiner has objected to the abstract, alleging that it does not clearly state what "is new in the art to which the invention pertains as claimed" (citing MPEP § 608.01(b)).

However, Applicants direct the Examiner to page 4, line 24 through page 7, line 14 of the Application, which describes the drawbacks inherent in other constructions of liquid crystal displays. Page 7, lines 17-23 of the Application then indicate two objects of the invention, which are essentially repeated in lines 12-18 of the Abstract, along with a brief description of the inventive structure which provides these features.

Thus, Applicants respectfully submit that the abstract does, in fact, comply with MPEP § 608.01(b), and therefore request the Examiner to withdraw this objection.

Claim Rejections In View Of Nakamura

The Examiner has rejected claims 1, 2, 3, 5, 6, 7, 9, 10, 16, 17, 18, 20, 21, 23 and 24 under 35 U.S.C. § 102(b) as being anticipated by Nakamura et al. (US 5,691,791; hereinafter "Nakamura") and/or claims 1-3, 5-10, 16-18 and 20-24 under 35 U.S.C. § 103(a) as being unpatentable over Nakamura. These rejections are respectfully traversed.

Nakamura

Nakamura discloses several embodiments of a liquid crystal display device. For example, Nakamura's first embodiment (noted as "Example 1") is shown in FIG. 1, and discloses a liquid crystal display device including lower substrate 8, upper substrate 16 and liquid crystal layer 17. Lower substrate 8 has large projections 4 and small projections 5 made of a synthetic resin material on glass substrate 2, planarization layer 6 (polymer resin layer) formed to cover the projections 4 and 5, and reflection layer 7 (as reflection pixel electrodes) formed on planarization layer 6. Reflection layers 7 are formed into parallel plural strips as shown in FIG. 3. An alignment layer 9 is formed on the reflection layers 7. Upper substrate 16 includes a glass substrate 3, plural transparent electrodes 10, alignment layer 11, first and second optical phase compensation members 13 and 14 and polarizer 15. (See col. 7, line 35 - col. 8, line 25).

Several other constructions capable of providing the shaped surface of lower substrate 8 are disclosed. However, each of these embodiments are fairly similar in construction to the first embodiment. Specifically, Example 2 (FIG. 17) shows TFT 121 provided on glass substrate 111 with projections 114a, 114b, polymer resin layer 115 and pixel electrode 119. Example 5 (FIGS. 19 and 23) shows glass substrate 251, resist layer 252 (projections), insulating layer 254 and metal layer 255. Example 6 shows glass substrate 281, TFT 290, reflection electrode 288 and resin layer 292, which is formed "using the method and materials described in Example 5" (see col. 19, lines 40-44), *i.e.*, a separate resist layer and insulating layer make up resin layer 292 (although not explicitly shown). Example 7 (FIG. 28) shows substrate 411 with insulating layers 412 and 415, resist layer 413 and metal layer 416.

In sum, all of the disclosed embodiments in Nakamura disclose a lower substrate consisting of "projections" formed on a glass substrate with further insulating layers formed on top of the "projections" to form concave and convex structures, whereupon a reflection electrode is arranged.

Thus, Applicants respectfully submit that the structures of the lower substrates disclosed in Nakamura are similar to (and no more pertinent than) the related art of the Application, shown in FIG. 36 (see protrusions 10 and polyimide film 11 provided on glass substrate 8). The inventive structure is quite different than that shown in FIG. 36 (and Nakamura), for at least the reasons discussed in the Application.

The Examiner's Position

Nevertheless, the Examiner takes the position that all of the features recited in the independent claims 1 and 16 are disclosed in FIGS. 27 and 37A of Nakamura.

Nakamura Fails to Teach or Suggest All of the Features Recited in the Claims

In contrast, Applicants respectfully submit that Nakamura fails to teach or suggest that "at least one portion of the insulation film is a single material that extends laterally along the second substrate under the entirety of at least two adjacent convex portions of the convex/concave structure," and that the portion "has, along its length, a generally constant thickness extending at least from an uppermost surface of the second substrate to a lowermost surface of a concave portion of the convex/concave structure located between the at least two adjacent convex portions," (as recited in claims 1 and 16)

As discussed above, Nakamura discloses a construction of an insulation film that is composed of multiple materials. Specifically, Nakamura's insulation film is constructed of laterally alternating projections (e.g., 114a, 114b in FIG. 17) and portions of an insulating layer (e.g., 115 in FIG. 17). Thus, in a generally constant thickness between substrate 111 and any of the concave portions of the insulation film, the insulation film alternates in construction from projection 114a to resin layer 115 and back to projection 114b as one moves laterally along the substrate 111. This alternating material construction in the direction of lateral extension of substrate 111 simply fails to provide a single material insulting portion with the length and thickness as recited in claims 1 and 16.

Thus, as Nakamura fails to teach or suggest all of the features recited in independent claims 1 and 16, Applicants respectfully request that the Examiner withdraw the rejection of these claims.

Dependent Claims

Additionally, Applicants respectfully submit that the elected dependent claims 2-10 and 17-24 are allowable, at least by virtue of their dependency from claims 1 and 16, respectively. Additionally, Applicants respectfully submit that at least the following claims are separately patentable.

Applicants respectfully submit that Nakamura fails to teach or suggest that "the insulation film is a single-layered film made from a single material" (as recited in claim 3) or that "the insulation film is a single layer structure, and has the convex/concave structure formed as a part of the surface, facing the first substrate, of the insulation film" (as recited in claim 17).

As discussed above, all of the insulation films disclosed in Nakamura are of at least a two-part structure, *e.g.*, projections 114a, 114b and polymer resin layer 115 in FIG. 17. Further, the insulation film of Nakamura is necessarily a two-part structure due to its disclosed methods of manufacture (See FIGS. 5, 19 and 28). Thus, Nakamura simply cannot teach or suggest an insulation film of a single material, as recited in claims 3 and 17.

Thus, Applicants respectfully request the Examiner to withdraw the rejection of the dependent claims.

New Claims

Applicants hereby add new claims 49-54 to more fully define the invention.

Claims 49 and 50 are supported by FIG. 1 of the Application, and are believed to be allowable at least by virtue of their dependency to claims 1 and 16, respectively.

Claims 51 and 52 correspond to original claims 3 and 17 rewritten in independent form and are thus fully supported by the Application, and are believed to be allowable at least for the reasons discussed above.

Claims 53 and 54 are supported at least by FIG. 1 of the Application, and are believed to be allowable for reasons similar to claims 3 and 17 above.

Conclusion

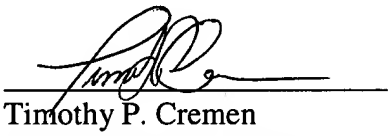
In view of the foregoing, it is respectfully submitted that elected claims 1-10, 16-24, and 49-56 are allowable. As both independent claims 1 and 16 are believed to be allowable and generic, Applicants also request rejoinder and allowance of non-elected species claims 25-32.

Thus, it is respectfully submitted that the application now is in condition for allowance with all of the claims of elected Group I, 1-10, 16-32 and 49-56.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Please charge any fees which may be required to maintain the pendency of this application, except for the Issue Fee, to our Deposit Account No. 19-4880.

Respectfully submitted,



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